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THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 09/684,174 Confirmation No. 1693  
Applicant : Mark Morelli et al  
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Examiner : Huy D. Nguyen

Docket No. : 00-623  
Customer No. : 34704

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313

**Appeal Brief under 37 CFR 41.37(c)(1)**

This Appeal Brief is submitted in support of the Notice of Appeal which was filed on June 5, 2006. A Request for Extension of Time accompanies this Brief to request extension of the period for filing the Appeal Brief to expire on November 5, 2006.

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**(i) Real party in interest** - The real party in interest for this Appeal is the assignee of record, namely, Carrier Corporation.

**(ii) Related appeals and interferences** - There was a previous Notice of Appeal and Appeal Brief filed in this application, which resulted in the Examiner reopening prosecution and entering the rejection from which the current Appeal is taken. There are no other known related appeals or interferences.

**(iii) *Status of claims*** - The claims are as listed in the amendment filed October 13, 2005 and as set forth in the accompanying Appendix. Thus claims 1-19 are pending in the case and all are rejected and appealed.

**(iv) Status of amendments** - There were no amendments filed subsequent to the final rejection from which this Appeal is taken. A response was filed on April 7, 2006, but this response did not contain any claim amendments.

**(v) Summary of claimed subject matter** - The invention is drawn to a method for wireless data exchange and control of structural appliances such as heating, ventilation, refrigeration and air conditioning systems. The application contains independent claims 1, 15 and 16.

Independent claim 1 calls for a method for remote control of structural appliances 10 (specification page 3, lines 7-11, and see also the single Figure generally for all reference numeral listings), comprising the steps of communicating a structural appliance 10 with a server 14 programmed to accept mobile device commands (specification page 3, lines 12-19), communicating a mobile device 16 with the server 14 (specification page 3, lines 22-24), issuing mobile device commands from the mobile device 16 to the server 14 (specification page 4, lines 27-30), converting the mobile device commands to structural appliance commands (specification page 4, lines 31-32), and issuing the structural appliance commands from the server 14 to the structural appliance 10 (specification page 4, line 32 through page 5 line 2), whereby wireless control of the structural appliance 10 is established.

Independent claim 15 calls for similar subject matter, from the aspect of the steps which are performed at the server. Thus, the claim calls for a method for allowing wireless control of structural appliances (specification page 3, lines 7-11), comprising the steps of: communicating a structural appliance 10 with a server 14 (specification page 3, lines 12-19); programming said server to accept mobile device commands (see specification page 3, lines 12-19); converting said mobile device commands into structural appliance commands (see specification page 4, lines 31-32);

and issuing said structural appliance commands to said structural appliance (specification page 4, line 32 through page 5 line 2).

Independent claim 16 also calls for subject matter similar to claim 1, wherein the structural appliance is specifically an HVAC appliance (See specification, page 3, line 10). Claim 16 calls for a method for remote control of an HVAC system (specification page 3, lines 7-11, comprising the steps of: communicating a HVAC system 10 with a server 14 programmed to accept mobile device commands (specification page 3, lines 12-19); communicating a mobile device 16 with said server 14 (specification page 3, lines 22-24); issuing said mobile device commands from said mobile device 16 to said server 14 (specification page 4, lines 27-30); converting said mobile device commands to HVAC system commands (specification page 4, lines 31-32); and issuing said HVAC system commands from said server 14 to said HVAC system 10 (specification page 4, line 32 through page 5 line 2), whereby wireless control of said HVAC system is established.

As set forth and made clear from the specification and drawings, server 14 is a separate device, remote from appliances 10 and phone 16, which provides server capability between the appliances and the remote located phone 16. Server 14 can be accessed using phone 16 to control and/or access data related to a plurality of appliances 10.

Further, server 14 stores data related to appliances 10 and can be programmed to provide this information to users and/or service technicians who can access server 14

remotely, for monitoring appliance function, preventive maintenance and the like.

Server 14 and phone 16 are adapted such that when server 14 and phone 16 are communicated, a list is displayed on phone 16 of appliances which can be controlled using phone 16, and to allow selection of which appliance to control from this list. Server 14 then converts resulting commands to the proper appliance understandable language, and sends the converted commands to the appliance. Dependent claims are drawn to this subject matter and are discussed below.

**(vi) *Grounds of rejection to be reviewed on appeal -***

The final rejection of December 30, 2005 contains a single ground of rejection of the claims and this ground of rejection is presented for review. The ground is as follows:

(1) a rejection of claims 1-19 under 35 USC 103(a) based upon U.S. Patent Number 6,434,403 to Ausems et al. (hereafter Ausems) combined with US 5,963,624 to Pope (hereafter Pope).

**(vii) Argument -**

In the single ground of rejection, the Examiner rejected all claims in the application as obvious based upon a combination of US Patent Number 6,434,403 to Ausems et al. (Ausems) in view of US Patent Number 5,963,624 to Pope (Pope).

Claims 1, 15 and 16 all call for communicating a server with a mobile device and structural appliance so that communications can be sent from the mobile device to the server, converted to structural appliance protocol at the server, and then sent to the structural appliance.

In rejecting these claims, the Examiner concedes that: "Ausems et al. does not clearly teach communicating structural appliance with a server programmed to accept mobile device commands; communicating a mobile device with server; issuing mobile device commands from mobile device to server; converting mobile device commands to structural appliance commands; and issuing structural appliance commands from server to structural appliance". See Official Action mailed April 8, 2005, paragraph 3, lines 6-10. In light of this admitted failing in Ausems, it is not clear why Ausems is even included in this rejection. At most, Ausems apparently teaches a PDA and the desire to control some type of appliances. Virtually every method step of claim 1 is conceded by the Examiner to be missing from Ausems.

In an advisory action mailed May 5, 2006, the Examiner responds to this point stating that "it is inherent in cellular communications that signals transmitted from a cell phone or PDA have to go through at least a base station (This reads on the server as claimed...)". It is

submitted that this position is clearly not supportive of the rejection of claims 1, 15 and 16. The "base station" referred to by the Examiner as being inherent to cell phone communications is not the server of the present claims. This interpretation by the Examiner ignores teachings of the specification and specific claim limitations drawn to server functions which are clearly not performed by the "base station" of cell phone communication systems.

Clearly, Ausems fails, as acknowledged by the Examiner, to teach the method steps of claims 1, 15 and 16.

To complete the obviousness rejection, the Examiner relies upon Pope.

Pope teaches the use of a digital cordless telephone to control electrical appliances. Control commands are carried from the cordless phone, by the voice data signal, to the base unit of the cordless phone, which can then generate an IR signal to control the desired appliance. It is respectfully submitted that (1) Pope is clearly non-analogous art, (2) the Examiner has not made a satisfactory *prima facie* case that a person skilled in the art would be motivated to combine the references as done by the Examiner, and (3) in fact a person skilled in the art would not be so motivated.

#### **Pope is Non-Analogous Art**

According to Section 2141.01(a) of the MPEP, the examiner must determine what is "analogous prior art" for the purpose of analyzing the obviousness of the subject matter at issue. "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's

endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned."

*In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). See also *In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986); *In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992).

Applicant's field of endeavor is to provide control of structural appliances through cell and GSM network using a WAP phone, a server and a gateway.

Pope is clearly outside of this field of endeavor. Pope does not rely on any type of cell or GSM communication, and is intended to allow control of devices from right within one's home, for example to mute the television when receiving a phone call. Obviously Pope is directed to a manifestly different field from that of the present invention, and is not in the field of Applicant's endeavor.

Pope is also not reasonably pertinent to the particular problem with which the inventor was concerned. The problem with which the present inventors were concerned is to allow remote control and access to appliance information to users such as technicians and appliance repairmen, as well as to allow home owners away from the home, etc., to control such appliances. Pope's disclosure, relying upon IR signals and power signal conditioning to control appliances, is clearly not reasonably related to the problem with which the inventors were concerned.

To reiterate, Pope is drawn to an in-home cordless phone which can also serve as a universal remote control. Clearly, Pope is non-analogous art and the rejection

asserted by the Examiner, relying upon Pope, is in error and should be withdrawn.

**There is no *prima facie* case of obviousness**

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The present rejection fails all three criteria.

**There is no suggestion or motivation to combine the reference teachings**

The Examiner has submitted that it would be desirable to combine Ausems with Pope "to allow control information to be multiplexed with the voice data and to reduce transmission error". It is not clear how combination of the IR cordless phone technology of Pope with the PDA technology of Ausems would accomplish either of these purported results asserted by the Examiner, and obviously such goals would need to be reasonably attainable in order to serve as motivation for this combination of art.

Ausems and Pope are directed to two very different systems with no common link. Pope does not disclose any technology which would be considered useful with the PDA technology disclosed by Ausems.

**There is no reasonable expectation of success**

Second, it is not at all clear that a skilled artisan would have any expectation of success in making the combination constructed by the Examiner. It is completely unclear exactly how and where the IR technology of Pope would be functionally incorporated into a system such as Ausems with any success at all, and/or that such a combination would even be functional.

**The prior art references, even when combined, do not teach or suggest all the claim limitations**

The Examiner has argued that the base unit of Pope falls within the scope of the claim term server in the present application. This is not true. A server as called for in the claims has meaning to a person skilled in the art to which the invention pertains, and such person would not consider the cordless phone base of Pope to be a server. Ausems combined with Pope clearly do not arrive at the subject matter of the present claims. The rejection of these claims is therefore in error and should be reversed.

In connection with claim 2, this claim calls for the server to be communicated with the structural appliance through a gateway. The Examiner has relied upon the same base unit of Pope as also being the gateway. It is submitted that it is a stretch to even consider the base unit of Pope to be a server as called for by the claims,

let alone for this base unit to also be a gateway. Pope's base unit is merely a universal IR remote control apparatus, and it is submitted that this structure is clearly not within the scope of the meaning of the terms server or gateway as understood by the person of ordinary skill in the art.

In connection with claims 3-4, the Examiner states that a teaching of this subject matter is found at column 4, lines 55-57. This portion of Pope clearly does not teach sending of structural appliance information from the server back to the mobile device. This excerpt of Pope teaches using the TV remote to store a signal in the phone (Figure 2 of Pope is the handset 50). Nothing in Pope is being sent from the server (base unit, for sake of argument) to the mobile device (handset).

Claim 4 calls for a series of detailed steps regarding the communication of information from the appliance back through the gateway and server to the mobile communication device. None of this subject matter is even remotely suggested by Ausems or Pope.

In connection with claims 7 and 8, these claims call for the mobile device to be a web enabled device, and for the mobile device to be communicated with the server utilizing wireless application protocol. Ausems does not even teach the server, and Pope apparently is considered to teach a server in the form of the base unit. There is absolutely no reason nor motivation why anyone would combine the references to communicate the cordless phone of Pope with the base unit via wireless application protocol.

The Examiner takes official notice in connection with claims 9 and 10 that global satellite network and global

computer network are well known in the art. While this may be true, it is a point which need not be argued at this time since whether known or not, there is absolutely no reason why a person of skill in the art would modify the cordless phone of Pope to arrive at the claimed subject matter. The device or system of Pope is used to control appliances in the home when the phone user receives a phone call. One stated use is so that televisions or stereos can be muted when a call is received. The digital and IR communication disclosed by Pope is perfectly well suited to that purpose, and there is absolutely no motivation nor reasoning as to why a person of skill in the art would incorporate internet and satellite communications into a system such as Pope.

In connection with dependent claim 18, this claim calls for the additional subject matter that the mobile device is operated by an energy provider, and that the appliance controlled is an appliance of a customer of the energy provider (i.e., is powered by energy from the energy provider). The Examiner dismisses this subject matter as obvious design choice, and states that no problem is solved, etc., by this subject matter. In fact, this aspect of the invention advantageously allows an energy provider to control power consumption, for example during times of peak demand, or impaired supply, as several examples. This is set forth in the specification.

There is absolutely no hint or suggestion as to use of the systems of Ausems or Pope in this manner. Ausems makes no mention of it, and teaches a system with a localized receiver for each device which would not function well if attempted to be used in the manner claimed in method claim

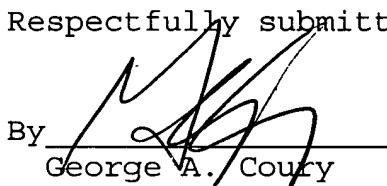
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18. Pope is drawn to a cordless phone and IR control of appliances within cordless phone range, i.e., within the house with the cordless phone. Clearly there would be no useful purpose to modify Pope to meet the subject matter of claim 18.

Based upon the foregoing, it is respectfully submitted that claims 1-19 are clearly patentable over the art of record. The rejection which forms the basis for this appeal is in error and should be reversed.

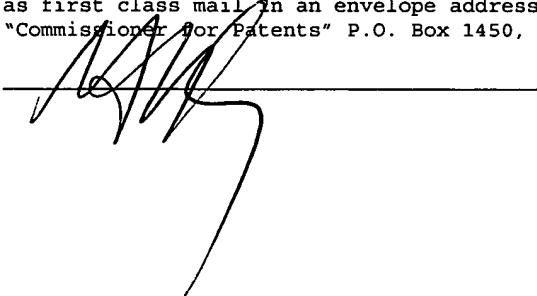
A fee of \$500 was paid in connection with the Appeal Brief previously filed in this application. This Appeal Brief led to reopening of prosecution by the Examiner. Thus, it is submitted that no additional fee is due at this time in connection with the filing of an appeal brief. If, however, any fee or fee deficiency is due, please charge same to Deposit Account 02-0184.

Respectfully submitted,

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I, George A. Coury, hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Appeal Brief-Patents "Commissioner for Patents" P.O. Box 1450, Alexandria, VA 22313-1450 on Nov. 6, 2006



**(viii) Claims appendix** - Attached hereto is a Claims appendix containing all claims in the application and which form the basis for this appeal.

1. A method for remote control of structural appliances, comprising the steps of:

communicating a structural appliance with a server programmed to accept mobile device commands;

communicating a mobile device with said server;

issuing said mobile device commands from said mobile device to said server;

converting said mobile device commands to structural appliance commands; and

issuing said structural appliance commands from said server to said structural appliance, whereby wireless control of said structural appliance is established.

2. The method according to claim 1, wherein said server is communicated with said structural appliance through a gateway.

3. The method according to claim 2, further comprising the steps of:

storing structural appliance information at one of said structural appliance, said gateway and said server; and

transmitting said structural appliance information from said server to said mobile device.

4. The method according to claim 3, wherein said structural appliance information is provided in structural

appliance format to said gateway, wherein said gateway converts said structural appliance format to mobile device format, and wherein said server transmits said structural appliance information to said mobile device in said mobile device format.

5. The method according to claim 3, wherein said structural appliance information comprises at least one type of information selected from the group consisting of diagnostic information, maintenance information, operating parameters, environmental information and combinations thereof.

6. The method according to claim 1, wherein said structural appliance is selected from the group consisting of heating, ventilation, air conditioning, refrigeration, building control and elevator appliances.

7. The method according to claim 1, wherein said mobile device is a web enabled device.

8. The method according to claim 7, wherein said mobile device is communicated with said server utilizing wireless application protocol.

9. The method according to claim 1, wherein said mobile device and said structural appliance are communicated with said server by a global satellite messaging network.

10. The method according to claim 9, wherein said server is communicated with said global satellite messaging network by a global computer network.

11. The method according to claim 10, wherein said mobile device issues said mobile device commands in wireless application protocol, and further comprising the step of converting said wireless application protocol to structural appliance protocol commands.

12. The method according to claim 10, wherein said server is adapted to display a plurality of options on said mobile device, whereby a user of said mobile device can select from said plurality of options so as to issue said mobile device commands.

13. The method according to claim 1, wherein said mobile device is communicated with said server from a remote location.

14. The method according to claim 13, wherein said server is a wireless-accessible server.

15. A method for allowing wireless control of structural appliances, comprising the steps of:  
communicating a structural appliance with a server;  
programming said server to accept mobile device commands;  
converting said mobile device commands into structural appliance commands; and

issuing said structural appliance commands to said structural appliance.

16. A method for remote control of an HVAC system, comprising the steps of:

communicating a HVAC system with a server programmed to accept mobile device commands;

communicating a mobile device with said server;

issuing said mobile device commands from said mobile device to said server;

converting said mobile device commands to HVAC system commands; and

issuing said HVAC system commands from said server to said HVAC system, whereby wireless control of said HVAC system is established.

17. The method according to claim 16, wherein said HVAC system is a non-central HVAC system.

18. The method according to claim 16, wherein said mobile device is operated by an energy provider and wherein said HVAC system comprises a plurality of HVAC systems of customers of said energy provider.

19. The method of claim 1, wherein said step of communicating said structural appliance with said server comprises communicating a plurality of structural appliances with said server, and wherein said step of communicating said mobile device with said server includes presenting a selection of said plurality of structural appliances at said mobile device.

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**(ix) Evidence appendix - None.**

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**(x) Related proceedings appendix - None.**